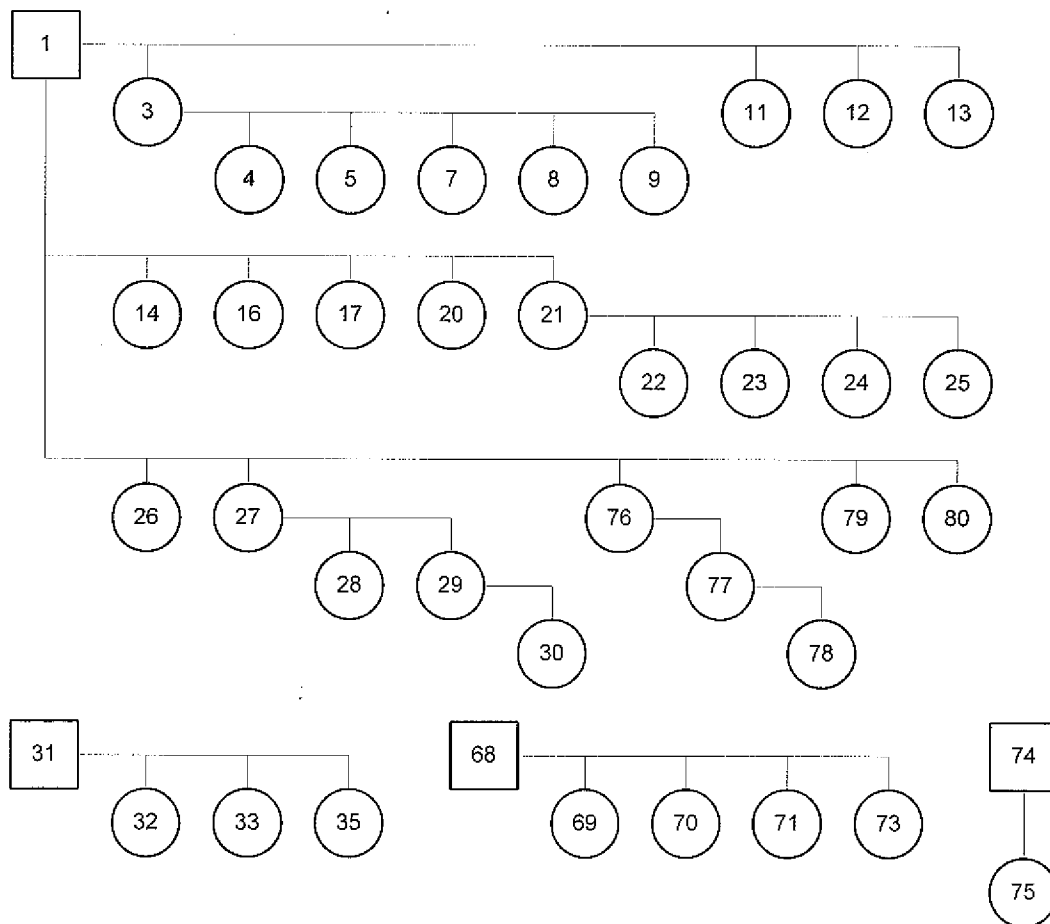


## REMARKS

In view of the following remarks, Applicants respectfully request reconsideration of the subject application. An Office action mailed March 22, 2007 ("the Office action") is pending in the application. Applicants have carefully considered the Office action and the references of record. In the Office action, claims 1-14, 16-33, 35, 68-71 and 73-75 were rejected under 35 U.S.C. § 102. In this response to the Office action, claims 1, 14, 16-17, 20, 31, 33, 68, 71 and 74 have been amended, claims 2, 6, 10, 18-19 have been canceled, and claims 76-80 have been added. Therefore, claims 1, 3-5, 7-9, 11-14, 16-17, 20-33, 35, 68-71 and 73-80 are pending in the application. The following diagram depicts the relationship between the independent and dependent claims as amended.



1        **Rejections of Independent Claims Under 35 U.S.C. § 102**

2        Each of the independent claims 1, 31, 68 and 74 stands rejected under 35  
3        U.S.C. § 102(b) as being anticipated by Yang et al., “HTML Page Analysis Based  
4        on Visual Cues,” 6<sup>th</sup> International Conference on Document Analysis and  
5        Recognition (ICDAR), 2001 (hereinafter *Yang*). However, the Manual of Patent  
6        Examining Procedure (M.P.E.P.) states that a claim is anticipated by a reference  
7        **only** if each and every element as set forth in the claim can be found in the  
8        reference and, furthermore, that the **identical** invention **must** be shown in as  
9        complete detail as is contained in the claim.

10        A claim is anticipated **only** if each and every element set forth in the claim  
11        is found, either expressly or inherently described, in a single prior art  
12        reference. ... The **identical** invention **must** be shown in as complete  
13        detail as is contained in the ... claim.

14        (M.P.E.P. § 2131, subsection titled “TO ANTICIPATE A CLAIM, THE  
15        REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM”, emphasis  
16        added). Each of the independent claims 1, 31, 68 and 74 include at least one  
17        feature not described by *Yang*. For at least this reason, the rejections under 35  
18        U.S.C. § 102 of the independent claims 1, 31, 68 and 74 should be withdrawn.  
19        Examples of claim features not found in *Yang* are given below.

20        Independent claim 1 is directed to a method of identifying portions of a  
21        document as part of vision-based document segmentation. Claim 1 requires at  
22        least three steps, namely: identifying visual blocks of the document, detecting  
23        separators of the document, and constructing a content structure for the document.  
24        Claim 1 is amended herein to make clear the distinction between visual blocks of  
25        the document and separators of the document. In particular, claim 1 is amended  
      herein to make clear that separators of the document are **distinct** from visual

1 blocks of the document, and that the set of visual blocks of the document and the  
2 set of separators of the document are determined by distinct steps of the method to  
3 which independent claim 1 is directed. This distinction is further emphasized by  
4 amending claim 1 to require that the identification of visual blocks of the  
5 document be based on a document model, such as the Document Object Model  
6 (DOM), **whereas** claim 1 requires that detection of the separators of the document  
7 be based on characteristics of the identified visual blocks. The content structure  
8 for the document is required by claim 1 to be based on **both** the visual blocks of  
9 the document **and** also the separators of the document.

10 A method of identifying ... portions of a document ... comprising:

11 identifying ... visual blocks in the document based on ... a  
12 document model ...;

13 detecting, **distinct** from the ... visual blocks, ... separators of the  
14 document **based on** ... characteristics of ... the ... visual blocks; and

15 constructing, based ... on the ... visual blocks **and** the ...  
16 separators, a content structure for the document.

17 (Independent claim 1, as amended, emphasis added). Newly added claims  
18 76-80 further point out this distinction. For example, claim 76 (depending directly  
19 from claim 1) requires that visual blocks be specified with respect to the document  
20 model, such as with nodes of a Document Object Model tree, but that separators  
21 be specified with respect to the document as it would be displayed, such as with a  
22 display area specification. (Specification, page 8, lines 8-9, and page 21, lines 6-  
23 12).

24 The Office action cites *Yang* as describing each feature of independent  
25 claim 1. However, in light of the present amendments, it should be clear that *Yang*  
fails to meet the “identical invention” standard required by a rejection under 35

1 U.S.C. § 102, and further that, alone or in combination with the prior art of record,  
2 Yang fails to meet the standard required by 35 U.S.C. § 103 to establish a *prima*  
3 *facie* case of obviousness. In particular, the nature and use of separators as  
4 required by claim 1 are not described by *Yang*.

5 The word ‘separators’ is once mentioned by *Yang* and is cited by the Office  
6 action. (*Yang*, page 2, left column, 3<sup>rd</sup> paragraph). However, even if the  
7 separators of *Yang* can be construed as the separators required by claim 1, there is  
8 just this mention. *Yang* does not describe the attributes of the separators required  
9 by claim 1, such as that they be based on characteristics of visual blocks, nor the  
10 interrelationships specified by claim 1, such as that the separators be distinct from  
11 the visual blocks, and that the content structure be based on both the visual blocks  
12 and also the separators. This is particularly true in the context of the specification  
13 of the present application that contrasts visual blocks as corresponding to nodes of  
14 a document model tree, with separators as corresponding to display surface (e.g.,  
15 pixel map) areas of a document as it would be displayed.

16 Section 3.4 of *Yang* is cited by the Office action as describing separators,  
17 but in fact, section 3.4 describes “simple objects,” “container objects,” “group  
18 objects,” “list objects,” and “structured documents.” These terms are defined  
19 earlier in *Yang* (*Yang*, page 2, section 2), and none of them match the separators  
20 required by claim 1. For example, the simple objects of *Yang* are defined as  
21 “none-breakable visual HTML objects that do not include other HTML tags (like  
22 paragraphs of pure texts or tags as <IMG>, <HR>) or are representations of one  
23 embedded media object (like <OBJECT>, <APPLET>).” (*Yang*, page 2, 5<sup>th</sup>  
24 paragraph, errors in the original). There is nothing in this definition that would  
25 suggest the separators of claim 1 to one of ordinary skill in the art, and the same is

1 true of the other definitions. There is a note in section 3.4 that “outliers between  
2 two list elements are appended as *do-not-cares*.” (*Yang*, page 4, section 3.4).  
3 However, these are, at best, list separators in contrast to the document separators  
4 required by claim 1 and, in any case, are effectively defined as insignificant.

5 For at least these reasons, *Yang* fails to describe each and every feature of  
6 independent claim 1 in as complete detail as required by claim 1, and claim 1 is  
7 therefore patentable. Furthermore, independent claims 31, 68 and 74 as amended,  
8 each include salient features similar to those of independent claim 1, and are  
9 therefore patentable for the same or similar reasons.

#### 10 11 **Rejections of Dependent Claims 14-30 Under 35 U.S.C. § 102**

12 Each of claims 14-30 is rejected with the same two sentences in *Yang*: “...  
13 the basic idea of our approach is to detect these visual cues.” Applicants complain  
14 that this is insufficient to meet the “identical invention” standard for a rejection  
15 under 35 U.S.C. § 102, and is furthermore suggestive of very little, even to one of  
16 extraordinary skill in the art. In particular, there is no mention of horizontal and  
17 vertical types of separators as required by claim 14, no mention of splitting a  
18 separator if it contains visual blocks as required by claim 16, no mention of  
19 modifying a separator as required by claim 17, no mention of assigning weights to  
20 separators based on various characteristics of visual blocks as required by claims  
21 21-25, and so forth. Applicants request thorough examination of the merits of  
22 these dependent claims, particularly in light of the amendments to independent  
23 claim 1 (from which each of these claims depend), and the context of the  
24 specification of the present application as expounded above.  
25

1       **The Remaining Dependent Claims**

2       Each of the claims 1, 31, 68 and 74 is in independent form, whereas all of  
3       the remaining claims depend directly or indirectly on one of these four  
4       independent claims. The dependent claims are allowable for at least the same  
5       reasons that the independent claims are allowable in that the dependent claims  
6       incorporate the features of the independent claims. Nevertheless, the dependent  
7       claims further define subject matter not shown or rendered obvious by the prior art  
8       of record. Because the independent claims are allowable over the applied  
9       references, Applicants believe that remarks addressing this further subject matter  
10      are unnecessary herein.

11  
12      **Canceled Claims and Newly Added Claims**

13      Dependent claims 2, 6, 10 and 18-19 are herein canceled for administrative  
14      reasons and without regard to merit. Applicants explicitly reserve the right to  
15      prosecute same and similar claims, in particular claims of broader scope, in a  
16      continuation application or other proceeding.

17      Dependent claims 76-80 have been newly added in this amendment to more  
18      particularly point out and distinctly claim the invention as described by the  
19      specification. In compliance with 37 CFR § 1.121(f), they do not add new matter.  
20  
21  
22  
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1 **Conclusion**

2 The present application is considered in good and proper form for  
3 allowance, and the Examiner is respectfully requested to pass the application to  
4 issue. If, in the opinion of the Examiner, a telephone conference would expedite  
5 the prosecution of the application, the Examiner is invited to call the undersigned.

6  
7 Respectfully Submitted,

8  
9 Dated: 9/24/2007

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